-continued

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Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65                  70                  75                  80

Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln Tyr Ser Ser Tyr Pro Tyr
                85                  90                  95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105
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1. An isolated antigen binding protein that specifically binds the lateral ridge (LR) or the CC' loop within domain III (DIII) of the E protein of Zika virus.

2. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein specifically binds the LR within DIII of the E protein of Zika virus.

3. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein specifically binds the A-strand, B-C loop, D-E loop and F-G loop within domain III (DIII) of the E protein of Zika virus.

4. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein specifically binds one or more sequences selected from the group consisting of SEQ ID NO:45 (TAAFTF), SEQ ID NO:46 (QYAGTDG), SEQ ID NO:47 (SXEN), SEQ ID NO:48 (EKKIT), and SEQ ID NO:49 (DKKIT).

5. (canceled)

6. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein comprises a heavy chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:21 (LGNDMDY), SEQ ID NO:22 (YYYDYDGMDY), and SEQ ID NO:23 (ENYGSVY).

7. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein comprises a heavy chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:17 (HPNSGN), SEQ ID NO:18 (HPNSGS), and SEQ ID NO:19 (YPRSXN).

8. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein comprises a heavy chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:12 (GYSFSNY), SEQ ID NO:13 (GYTFTSS), SEQ ID NO:14 (GYTFTSY), and SEQ ID NO:15 (GYSFTTY).

9. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein comprises a light chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:33 (QQYYSYPYT), SEQ ID NO:34 (QQYYTYPYT), SEQ ID NO:35 (QQFSSYPYT), and SEQ ID NO:36 (QQFSNYPFT).

10. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein comprises a heavy chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:29 (WASARDS), SEQ ID NO:30 (WASTRES), and SEQ ID NO:31 (SASNRYT).

11. The isolated antigen binding protein of claim **1**, wherein the antigen binding protein comprises a heavy chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:25 (KSSQSLLYSNNEKNYLA), SEQ ID NO:26 (KSSQSLLYSSNQKNYLA), and SEQ ID NO:27 (KASQXVGTAVA).

12. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein comprises a heavy chain variable region comprising SEQ ID NO:23 (ENYGSVY), SEQ ID NO:19 (YPRSXN), and SEQ ID NO:14 (GYTFTSY) or SEQ ID NO:15 (GYSFTTY).

13. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein comprises a heavy chain variable region comprising Thr-Ser/Thr-Tyr, SEQ ID NO:50 (Tyr-X-Arg-XX-Asn), and Asn-Tyr-Gly.

14. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein comprises a light chain variable region comprising SEQ ID NO:31 (SASNRYT), SEQ ID NO:27 (KASQXVGTAVA), and SEQ ID NO:35 (QQFSSYPYT) or SEQ ID NO:36 (QQFSNYPFT).

15. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein comprises SEQ ID NO:7 or SEQ ID NO:9.

16. The isolated antigen binding protein of claim **2**, wherein the antigen binding protein comprises SEQ ID NO:8 or SEQ ID NO:10.

17. An immunoassay comprising at least one isolated antigen binding protein of claim **1**.

18. The immunoassay of claim **17**, wherein the immunoassay is a competitive immunoassay.

19. (canceled)

20. (canceled)

21. (canceled)

22. A method of treating a Zika virus infection in a subject, the method comprising administering to the subject an effective amount of an isolated antigen binding protein, wherein the antigen binding protein specifically binds the lateral ridge (LR) or the CC' loop within domain III (DIII) of the E protein of Zika virus.

23. A method of protecting against a Zika virus infection in a subject, the method comprising administering to the subject an effective amount of an isolated antigen binding protein, wherein the antigen binding protein specifically binds the lateral ridge (LR) or the CC' loop within domain III (DIII) of the E protein of Zika virus.

24. The method of claim **23**, wherein the subject is pregnant or plans to become pregnant.

25. (canceled)

26. (canceled)

27. (canceled)

28. (canceled)

29. (canceled)

30. (canceled)

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